



**PATENT APPLICATION**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re application of

Docket No: Q67299

Masayuki KIMATA

Appln. No.: 09/987,555

Group Art Unit: 2638

Confirmation No.: 7542

Examiner: Emmanuel Bayard

Filed: November 15, 2001

For: ADAPTIVE ARRAY ANTENNA RECEIVING APPARATUS

**PRE-APPEAL BRIEF REQUEST FOR REVIEW**

**MAIL STOP AF - PATENTS**

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Pursuant to the new Pre-Appeal Brief Conference Pilot Program, and further to the Examiner's Final Office Action dated August 26, 2005, Applicant files this Pre-Appeal Brief Request for Review. This Request is also accompanied by the filing of a Notice of Appeal.

Applicant turns now to the rejections at issue:

Claims 1, 2, 4, 8, 11, 12, and 14 are all the claims pending in the subject application and stand finally rejected. The Examiner maintains the rejection of claims 1 and 11 as allegedly being anticipated by *Iishi* under 35 U.S.C. §102(e). The Examiner maintains the rejection of claims 2, 4, 8, 12, 14 and 18 as allegedly being unpatentable over *Ishii* in view of *Wang, et al.* (U.S. Patent No. 6,289,062 ) ("*Wang*") under 35 U.S.C. §103(a). (Final Office Action, August 26, 2005; Advisory Action, December 8, 2005)

The Examiner rejects claims 1 and 11 as allegedly being anticipated by *Iishi* under 35 U.S.C. §102(e). Applicant traverses the rejections because *Iishi* fails to disclose all of the claim

limitations. More particularly, *Iishi* at least fails to disclose an error signal producing means supplied with a rake combined signal and a reference signal to produce a common error signal.

The Examiner asserts that *Iishi* discloses an error signal producing means, citing element 8 of Fig. 2 and col. 4, lines 13-38 (FOA page 3). Further, the Examiner asserts that the error signal producing means calculates the difference between the rake combined signal and a reference signal to produce a common error signal (Examiner *citing to* element 8 of Fig. 2 and col. 4, lines 19-38; OA page 3). The Examiner asserts that subtractor 8 is supplied with the rake combined signal and a reference signal to produce a common error signal (FOA page 3).

However, subtractor 8 receives an input *from a single receiver* (3-1) via adder 7 (versus the adder 4) and an input from decision 5 (3-1 in Fig. 1; col. 3, lines 23-27; col. 3, lines 31-34; col. 3, lines 35-40; Fig. 2). Fig. 1 discloses a block diagram showing a CDMA adaptive receiver receiving apparatus, and Fig. 2 discloses a block diagram of a constitution of an adaptive receiver in Fig. 1 (col. 2, lines 58-63). Turning first to Fig. 1, *Iishi* discloses receivers 3-1, 3-2 . . . 3-M, the outputs of which are summed by adder 4 (col. 3, lines 23-26; Fig. 1). Receivers 3-1 to 3-M comprise adaptive receivers 31-1 to 31-M (col. 3, lines 32-34). Second, turning to Fig. 2, *Iishi* discloses that Fig. 2 represents adaptive receiver 31-1, where each of the adaptive receivers 31-1 to 31-M have the same configuration (col. 3, lines 35-37). Adaptive receiver 31-1 comprises adaptive receiver units 6-1 to 6-L (col. 3, lines 35-40; Fig. 2). Outputs from Adaptive receiving units 6-1, 6-2 . . . 6-L (all comprised in adaptive receiver 31-1) are summed by adder 7. The output of adder 7 is fed to both adder 4 and subtractor 8 (Fig. 7; col. 4, lines 9-17).

Subtractor 8 receives input from adder 7 and decision 5. Adder 7 fails to add, combine, the rake combined signal because adder 7 adds the outputs only from one adaptive receiver, 31-1

(col. 3, lines 31-46; col. 4, lines 9-17; Figs. 1 and 2). Adder 4, forms the rake combined signal (col. 3, lines 23-26; Fig. 1; abstract).

In contrast, claims 1 and 11 require, “. . . error signal producing means supplied with the rake combined signal and a reference signal for calculating a difference between the rake combined signal and the reference signal to produce a common error signal . . .” (claims 1 and 11). The Examiner’s *assertion* that subtractor 8 is supplied with the rake combined signal and a reference signal to produce a common error signal (FOA page 3) *fails*. *Iishi* fails to disclose an error producing means calculating the difference between a common error signal and a reference signal.

*Ishii* teaches employing an error producing means, which is also disclosed in the prior art (Figs. 5 and 6: col. 1, lines 32-63). The error signal is produced *for each path* ( $M=1$  and  $L=1$ ) via subtractor 169 receiving inputs from adder 164 and decision 150 (Figs. 5 and 6; col. 1, line 33 to col. 2, line 19). The error producing means in *Ishii* is calculated using an  $M$ , number of multipaths, equal to 1 (*Ishii* Figs. 5 and 6; col. 2 lines 7-13). *Iishi* fails to disclose an error producing means calculating the difference between *a common error signal* and a reference signal, wherein the common error signal is calculated by a difference between the rake combined signal and the reference signal. At least for this deficiency, the rejection of claims 1 and 11 as being anticipated by *Iishi* under 35 U.S.C. §102(e) should be withdrawn.

Summarizing the arguments above and referring to the Advisory Action dated December 8, 2005, the Examiner asserts that adder 7 adds multiple receiver outputs 6-1 to 6- $M$  and therein forms a rake combined signal. We disagree as outlined in the Request for Reconsideration filed November 28, 2005. Specifically, we assert that *Iishi* teaches Fig. 2 as representing adaptive

receiver 31-1 which comprises *adaptive receiver units* 6-1, 6-2, . . . 6-L (col. 3, lines 35-40).

Each adaptive receiver 31-1, 31-2, . . . 31-M is identical with the next (Fig. 1; col. 3, lines 32-34; lines 35-37). Subtractor 8, forming the error signal, subtracts the difference between a reference signal (output from device 5) and adder 7. We submit that the output of adder 4 (Fig. 1) is a rake combined signal, while the output of adder 7 is the output of a single receiver. Therein, *Ishii* fails to disclose an error signal producing means supplied with a reference signal and a rake combined signal.

The Examiner rejects claims 2, 4, 8, 12, 14 and 18 as allegedly being unpatentable over *Ishii* in view of *Wang, et al.* (U.S. Patent No. 6,289,062 ) ("*Wang*") under 35 U.S.C. §103(a).

Claims 2, 4, 8, 12, 14 and 18 are asserted as being patentable at least by virtue of their dependence upon an allowable claim.

In view of the preceding amendments and remarks, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby earnestly solicited.

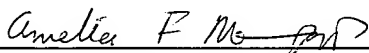
Respectfully submitted,

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WASHINGTON OFFICE

**23373**

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Date: January 27, 2006



Modified PTO/SB/33 (10-05)

PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number	
		Q67299	
Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450	Application Number	Filed	
	09/987,555	November 15, 2001	
	First Named Inventor		
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	Art Unit	Examiner	
	2638	Emmanuel Bayard	
WASHINGTON OFFICE <b>23373</b> CUSTOMER NUMBER			
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reasons stated on the attached sheets. No more than five (5) pages are provided.</p> <p><input checked="" type="checkbox"/> I am an attorney or agent of record.</p> <p>Registration number <u>52,049</u></p> <p><u>Amelia F. Morani</u> Signature</p> <p><u>Amelia F. Morani, Ph.D.</u> Typed or printed name</p> <p><u>(202) 293-7060</u> Telephone number</p> <p><u>January 27, 2006</u> Date</p>			